217/785-1705

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT -- NSPS and NESHAP SOURCE

PERMITTEE

Citation Oil and Gas Corporation
Attn: Lee Ann Elsom
8223 Willow Place South, Suite 250
Houston, Texas 77070-5623

Application No.: 07070051 I.D. No.: 121813AAA
Applicant's Designation: Date Received: January 7, 2008
Subject: Salem Unit
Date Issued: March 25, 2014 Expiration Date: March 25, 2024
Location: 2302 Hoots Chapel Road, Odin, Marion County 62870

This permit is hereby granted to the above-designated Permittee to OPERATE emission unit(s) and/or air pollution control equipment consisting of:

North Tank Battery:
Two (2) 400 bbl Oil Stock Tanks;
Two (2) 600 bbl Gunbarrel Tanks;
One (1) 3,300 bbl Oil Stock Tank;
One (1) Non-Assisted Flare;
One (1) Vapor Recovery Unit;

Water Injection Facility:
Two (2) 5,000 bbl Oil Stock Tanks;
Two (2) 20,000 bbl Gunbarrel Tanks;
One (1) Vapor Recovery Unit;
One (1) Non-Assisted Flare;

South Tank Battery:
Two (2) 400 bbl Oil Stock Tanks;
Two (2) 600 bbl Gunbarrel Tanks;
One (1) 3,300 bbl Oil Stock Tank;
One (1) Vapor Recovery Unit;

Salem Gas Plant:
One (1) Glycol Dehydration Unit with 0.3 mmBtu/Hour Sweet Natural Gas-Fired Dehydrator Reboiler (PH1);
One (1) Bio-Desulfurization Unit (PV1);
One (1) 210 bbl Condensate Tank (Located at South Battery);
One (1) Air-Assisted Flare; and
Equipment Fugitives;

pursuant to the above-referenced application. This permit is subject to standard conditions attached hereto and the following special condition(s):

1a. This federally enforceable state operating permit is issued to limit the emissions of air pollutants from the source to less than major source thresholds (i.e., 100 tons/year for VOM, and 10 tons/year for

any single Hazardous Air Pollutant (HAP) and 25 tons/year of any combination of such HAPs). As a result, the source is excluded from the requirements to obtain a Clean Air Act Permit Program (CAAPP) permit. The maximum emissions of this source, as limited by the conditions of this permit, are described in Attachment A.

b. Prior to issuance, a draft of this permit has undergone a public notice and comment period.

c. This permit supersedes all operating permit(s) for this location.

2a. This source is subject to the New Source Performance Standards (NSPS) for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011, 40 CFR 60 Subparts A and KKK. The Illinois EPA is administering the NSPS in Illinois on behalf of the United States EPA under a delegation agreement. Pursuant to 40 CFR 60.630(a):

i. The provisions of 40 CFR 60 Subpart KKK apply to affected facilities in onshore natural gas processing plants.

ii. A compressor in VOC service or in wet gas service is an affected facility.

iii. The group of all equipment except compressors (defined in 40 CFR 60.631) within a process unit is an affected facility.

b. Pursuant to 40 CFR 60.632(a), each owner or operator subject to the provisions of 40 CFR 60 Subpart KKK shall comply with the requirements of 40 CFR 60.482-1(a), (b), and (d) and 60.482-2 through 60.482-10, except as provided in 40 CFR 60.633, as soon as practicable, but no later than 180 days after initial startup.

c. Pursuant to 40 CFR 60.632(b), an owner or operator may elect to comply with the requirements of 40 CFR 60.483-1 and 60.483-2.

d. Pursuant to 40 CFR 60.632(d), each owner or operator subject to the provisions of 40 CFR 60 Subpart KKK shall comply with the provisions of 40 CFR 60.485 except as provided in 40 CFR 60.633(f).

e. Pursuant to 40 CFR 60.632(e), each owner or operator subject to the provisions of 40 CFR 60 Subpart KKK shall comply with the provisions of 40 CFR 60.486 and 60.487 except as provided in 40 CFR 60.633, 60.635, and 60.636.

f. Pursuant to 40 CFR 60.632(f), an owner or operator shall use the following provision instead of 40 CFR 60.485(d)(1): Each piece of equipment is presumed to be in VOC service or in wet gas service unless an owner or operator demonstrates that the piece of equipment is not in VOC service or in wet gas service. For a piece of equipment to be considered not in VOC service, it must be determined that the VOC

content can be reasonably expected never to exceed 10.0 percent by weight. For a piece of equipment to be considered in wet gas service, it must be determined that it contains or contacts the field gas before the extraction step in the process. For purposes of determining the percent VOC content of the process fluid that is contained in or contacts a piece of equipment, procedures that conform to the methods described in ASTM E169-63, 77, or 93, E168-67, 77, or 92, or E260-73, 91, or 96 shall be used.

3a. This source is subject to the New Source Performance Standards (NSPS) for SO_2 Emissions From Onshore Natural Gas Processing for Which Construction, Reconstruction, or Modification Commenced After January 20, 1984, and on or Before August 23, 2011, 40 CFR 60 Subparts A and LLL. The Illinois EPA is administering the NSPS in Illinois on behalf of the United States EPA under a delegation agreement. Pursuant to 40 CFR 60.640(a), the provisions of 40 CFR 60 Subpart LLL are applicable to the following affected facilities that process natural gas: each sweetening unit, and each sweetening unit followed by a sulfur recovery unit.

b. Pursuant to 40 CFR 60.640(b) facilities that have a design capacity less than 2 long tons per day (LT/D) of hydrogen sulfide (H_2S) in the acid gas (expressed as sulfur) are required to comply with 40 CFR 60.647(c) but are not required to comply with 40 CFR 60.642 through 60.646.

4a. This source is subject to the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Oil and Natural Gas Production Facilities, 40 CFR 63, Subparts A and HH. The Illinois EPA is administering the NESHAP in Illinois on behalf of the United States EPA under a delegation agreement. Pursuant to 40 CFR 63.760(a), 40 CFR 63 Subpart HH applies to the owners and operators of the emission points, specified in 40 CFR 63.760(b) that are located at oil and natural gas production facilities that meet the specified criteria in 40 CFR 63.760(a)(1) and either (a)(2) or (a)(3).

i. Facilities that are major or area sources of hazardous air pollutants (HAP) as defined in 40 CFR 63.761.

ii. Facilities that process, upgrade, or store hydrocarbon liquids.

iii. Facilities that process, upgrade, or store natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user. For the purposes of 40 CFR 63 Subpart HH, natural gas enters the natural gas transmission and storage source category after the natural gas processing plant, when present. If no natural gas processing plant is present, natural gas enters the natural gas transmission and storage source category after the point of custody transfer.

b. Pursuant to 40 CFR 63.760(b)(2), the affected sources for area sources includes each triethylene glycol (TEG) dehydration unit located at a facility that meets the criteria specified in 40 CFR 63.760(a).

c. Pursuant to 40 CFR 63.760(c), any source that determines it is not a major source but has actual emissions of 5 tons per year or more of a single HAP, or 12.5 tons per year or more of a combination of HAP (i.e., 50 percent of the major source thresholds), shall update its major source determination within 1 year of the prior determination or October 15, 2012, whichever is later, and each year thereafter, using gas composition data measured during the preceding 12 months.

d. Pursuant to 40 CFR 63.762(a), the provisions set forth in 40 CFR 63 Subpart HH shall apply at all times.

e. Pursuant to 40 CFR 63.764(d)(2), except as specified in 40 CFR 63.764(e)(1), each owner or operator of an area source not located in a UA plus offset and UC boundary (as defined in 40 CFR 63.761) shall comply with 40 CFR 63.764(d)(2)(i) through (iii).

i. Determine the optimum glycol circulation rate using the following equation:

$$L_{OPT} = 1.15 * 3.0 \frac{\text{gal TEG}}{\text{lb } H_2O} * \left(\frac{F * (I - O)}{24 \text{ hr/day}} \right)$$

Where:

L_{OPT} = Optimal circulation rate, gal/hr.

F = Gas flowrate (MMSCF/D).

I = Inlet water content (lb/MMSCF).

O = Outlet water content (lb/MMSCF).

3.0 = The industry accepted rule of thumb for a TEG-to water ratio (gal TEG/lb H_2O).

1.15 = Adjustment factor included for a margin of safety.

ii. Operate the TEG dehydration unit such that the actual glycol circulation rate does not exceed the optimum glycol circulation rate determined in accordance with 40 CFR 63.764(d)(2)(i). If the TEG dehydration unit is unable to meet the sales gas specification for moisture content using the glycol circulation rate determined in accordance with 40 CFR 63.764(d)(2)(i), the owner or operator must calculate an alternate circulation rate using GRI-GLYCalcTM, Version 3.0 or higher. The owner or operator must document why the TEG dehydration unit must be operated using the alternate circulation rate and submit this

documentation with the initial notification in accordance with 40 CFR 63.775(c)(7).

iii. Maintain a record of the determination specified in 40 CFR 63.764(d)(2)(ii) in accordance with the requirements in 40 CFR 63.774(f) and submit the Initial Notification in accordance with the requirements in 40 CFR 63.775(c)(7). If operating conditions change and a modification to the optimum glycol circulation rate is required, the owner or operator shall prepare a new determination in accordance with 40 CFR 63.764(d)(2)(i) or (ii) and submit the information specified under 40 CFR 63.775(c)(7)(ii) through (v).

5a. Pursuant to 35 Ill. Adm. Code 212.123(a), no person shall cause or allow the emission of smoke or other particulate matter, with an opacity greater than 30 percent, into the atmosphere from any emission unit other than those emission units subject to 35 Ill. Adm. Code 212.122.

b. Pursuant to 35 Ill. Adm. Code 212.123(b), the emission of smoke or other particulate matter from any such emission unit may have an opacity greater than 30 percent but not greater than 60 percent for a period or periods aggregating 8 minutes in any 60 minute period provided that such opaque emissions permitted during any 60 minute period shall occur from only one such emission unit located within a 305 meter (1000 foot) radius from the center point of any other such emission unit owned or operated by such person, and provided further that such opaque emissions permitted from each such emission unit shall be limited to 3 times in any 24 hour period.

c. Pursuant to 35 Ill. Adm. Code 212.301, no person shall cause or allow the emission of fugitive particulate matter from any process, including any material handling or storage activity, that is visible by an observer looking generally toward the zenith at a point beyond the property line of the source.

6. Pursuant to 35 Ill. Adm. Code 214.301, except as further provided by 35 Ill. Adm. Code Part 214, no person shall cause or allow the emission of sulfur dioxide in the atmosphere from any process emission source to exceed 2000 ppm.

7a. Pursuant to 35 Ill. Adm. Code 215.121(b)(2), no person shall cause or allow the storage of any volatile organic liquid with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F) or any gaseous organic material in any stationary tank, reservoir or other container of more than 151 cubic meters (40,000 gallons) capacity unless such tank, reservoir or other container is designed and equipped with a vapor recovery system consisting of:

i. A vapor gathering system capable of collecting 85% or more of the uncontrolled volatile organic material that would be otherwise emitted to the atmosphere; and

ii. A vapor disposal system capable of processing such volatile organic material so as to prevent its emission to the atmosphere. No person shall cause or allow the emission of air contaminants into the atmosphere from any gauging or sampling devices attached to such tank, reservoir or other container except during sampling.

b. Pursuant to 35 Ill. Adm. Code 215.122(b), no person shall cause or allow the loading of any organic material into any stationary tank having a storage capacity of greater than 946 liters (250 gallons), unless such tank is equipped with a permanent submerged loading pipe, submerged fill, or an equivalent device approved by the Illinois EPA according to the provisions of 35 Ill. Adm. Code 201 or unless such tank is a pressure tank as described in 35 Ill. Adm. Code 215.121(a) or is fitted with a recovery system as described in 35 Ill. Adm. Code 215.121(b)(2).

c. Pursuant to 35 Ill. Adm. Code 215.141(a), no person shall use any single or multiple compartment effluent water separator which receives effluent water containing 757 liters/day (200 gallons/day) or more of organic material from any equipment processing, refining, treating, storing or handling organic material unless such effluent water separator is equipped with air pollution control equipment capable of reducing by 85 percent or more the uncontrolled organic material emitted to the atmosphere. Exception: If no odor nuisance exists, the limitations of 35 Ill. Adm. Code 215.141(a) shall not apply if the vapor pressure of the organic material is below 17.24 kPa (2.5 psia) at 294.3°K (70°F).

d. Pursuant to 35 Ill. Adm. Code 215.142, no person shall cause or allow the discharge of more than 32.8 ml (2 cu in) of volatile organic liquid with vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F) into the atmosphere from any pump or compressor in any 15 minute period at standard conditions.

e. Pursuant to 35 Ill. Adm. Code 215.301, no person shall cause or allow the discharge of more than 3.6 kg/hour (8 lbs/hour) of organic material into the atmosphere from any emission source, except as provided in 35 Ill. Adm. Code 215.302, 215.303, 215.304 and the following exception: If no odor nuisance exists the limitation of 35 Ill. Adm. Code 215 Subpart K (Use of Organic Material) shall apply only to photochemically reactive material.

e. Pursuant to 35 Ill. Adm. Code 215.302, emissions of organic material in excess of those permitted by 35 Ill. Adm. Code 215.301 are allowable if such emissions are controlled by one of the following methods:

i. Flame, thermal or catalytic incineration so as either to reduce such emissions to 10 ppm equivalent methane (molecular weight 16) or less, or to convert 85 percent of the hydrocarbons to carbon dioxide and water; or

ii. A vapor recovery system which adsorbs and/or condenses at least 85 percent of the total uncontrolled organic material that would otherwise be emitted to the atmosphere.

8. Pursuant to 35 Ill. Adm. Code 212.314, 35 Ill. Adm. Code 212.301 shall not apply and spraying pursuant to 35 Ill. Adm. Code 212.304 through 212.310 and 35 Ill. Adm. Code 212.312 shall not be required when the wind speed is greater than 40.2 km/hour (25 mph). Determination of wind speed for the purposes of this rule shall be by a one-hour average or hourly recorded value at the nearest official station of the U.S. Weather Bureau or by wind speed instruments operated on the site. In cases where the duration of operations subject to this rule is less than one hour, wind speed may be averaged over the duration of the operations on the basis of on-site wind speed instrument measurements.

9a. Pursuant to 35 Ill. Adm. Code 215.122(c), if no odor nuisance exists the limitations of 35 Ill. Adm. Code 215.122 shall only apply to the loading of volatile organic liquid with a vapor pressure of 17.24 kPa (2.5 psia) or greater at 294.3°K (70°F).

b. Pursuant to 35 Ill. Adm. Code 215.141(b), 35 Ill. Adm. Code 215.141(a) shall not apply to water and crude oil separation in the production of Illinois crude oil, if the vapor pressure of such crude oil is less than 34.5 kPa (5 psia).

10a. Pursuant to 40 CFR 60.11(d), at all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Illinois EPA or USEPA which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

b. i. Pursuant to 40 CFR 60.18(c)(1), flares shall be designed for and operated with no visible emissions as determined by the methods specified in 40 CFR 60.18(f), except for periods not to exceed a total of 5 minutes during any 2 consecutive hours.

ii. Flares shall be operated with a flame present at all times, as determined by the methods specified in 40 CFR 60.18(f).

iii. An owner/operator has the choice of adhering to either the heat content specifications in 40 CFR 60.18(c)(3)(ii) and the maximum tip velocity specifications in 40 CFR 60.18(c)(4), or adhering to the requirements in 40 CFR 60.18(c)(3)(i).

A. I. Flares shall be used that have a diameter of 3 inches or greater, are nonassisted, have a hydrogen content

of 8.0 percent (by volume), or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity, V_{max}, as determined by the following equation:

$$V_{max} = (X_{H2} - K_1) * K_2$$

Where:

V_{max} = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9(m/sec)/volume-percent hydrogen.

X_{H2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77.

II. The actual exit velocity of a flare shall be determined by the method specified in 40 CFR 60.18(f)(4).

B. Flares shall be used only with the net heating value of the gas being combusted being 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted being 7.45 MJ/scm (200 Btu/scf) or greater if the flare is nonassisted. The net heating value of the gas being combusted shall be determined by the methods specified in 40 CFR 60.18(f)(3).

iv. A. Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18(f)(4), less than 18.3 m/sec (60 ft/sec), except as provided in 40 CFR 60.18(c)(4)(ii) and (iii).

B. Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18(f)(4), equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec) are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

C. Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the methods specified in 40 CFR 60.18(f)(4), less than the velocity, V_{max}, as determined by the method specified in 40

CFR 60.18(f)(5), and less than 122 m/sec (400 ft/sec) are allowed.

v. Air-assisted flares shall be designed and operated with an exit velocity less than the velocity, V_{max}, as determined by the method specified in 40 CFR 60.18(f)(6).

vi. Flares used to comply with 40 CFR 60.18 shall be steam-assisted, air-assisted, or nonassisted.

c. Pursuant to 40 CFR 60.18(d), owners or operators of flares used to comply with the provisions of 40 CFR 60 Subpart A shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs. Applicable subparts will provide provisions stating how owners or operators of flares shall monitor these control devices.

d. Pursuant to 40 CFR 60.18(e), flares used to comply with provisions of 40 CFR 60 Subpart A shall be operated at all times when emissions may be vented to them.

11a. Pursuant to 40 CFR 60.482-1(a), each owner or operator subject to the provisions of 40 CFR 60 Subpart VV shall demonstrate compliance with the requirements of 40 CFR 60.482-1 through 60.482-10 or 40 CFR 60.480(e) for all equipment within 180 days of initial startup.

b. Pursuant to 40 CFR 60.482-1(b), compliance with 40 CFR 60.482-1 to 60.482-10 will be determined by review of records and reports, review of performance test results, and inspection using the methods and procedures specified in 40 CFR 60.485.

c. Pursuant to 40 CFR 60.482-1(d), equipment that is in vacuum service is excluded from the requirements of 40 CFR 60.482-2 to 60.482-10 if it is identified as required in 40 CFR 60.486(e)(5).

d. Pursuant to 40 CFR 60.482-10(a), owners or operators of closed vent systems and control devices used to comply with provisions of 40 CFR 60 Subpart VV shall comply with the provisions of 40 CFR 60.482-10.

e. Pursuant to 40 CFR 60.482-10(d), flares used to comply with 40 CFR 60 Subpart VV shall comply with the requirements of 40 CFR 60.18.

f. Pursuant to 40 CFR 60.482-10(e), owners or operators of control devices used to comply with the provisions of 40 CFR 60 Subpart VV shall monitor these control devices to ensure that they are operated and maintained in conformance with their designs.

g. Pursuant to 40 CFR 60.482-10(f), except as provided in 40 CFR 60.482-10(i) through (k), each closed vent system shall be inspected according to the procedures and schedule specified in 40 CFR 60.482-10(f)(1) and (f)(2).

i. If the vapor collection system or closed vent system is constructed of hard-piping, the owner or operator shall comply with the requirements specified in 40 CFR 60.482-10(f)(1)(i) and (f)(1)(ii):

A. Conduct an initial inspection according to the procedures in 40 CFR 60.485(b); and

B. Conduct annual visual inspections for visible, audible, or olfactory indications of leaks.

ii. If the vapor collection system or closed vent system is constructed of ductwork, the owner or operator shall:

A. Conduct an initial inspection according to the procedures in 40 CFR 60.485(b); and

B. Conduct annual inspections according to the procedures in 40 CFR 60.485(b).

h. Pursuant to 40 CFR 60.482-10(g), leaks, as indicated by an instrument reading greater than 500 parts per million by volume above background or by visual inspections, shall be repaired as soon as practicable except as provided in 40 CFR 60.482-10(h).

i. A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.

ii. Repair shall be completed no later than 15 calendar days after the leak is detected.

i. Pursuant to 40 CFR 60.482-10(h), delay of repair of a closed vent system for which leaks have been detected is allowed if the repair is technically infeasible without a process unit shutdown or if the owner or operator determines that emissions resulting from immediate repair would be greater than the fugitive emissions likely to result from delay of repair. Repair of such equipment shall be complete by the end of the next process unit shutdown.

j. Pursuant to 40 CFR 60.482-10(i), if a vapor collection system or closed vent system is operated under a vacuum, it is exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2).

k. Pursuant to 40 CFR 60.482-10(j), any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(1), as unsafe to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(j)(1) and (j)(2):

i. The owner or operator determines that the equipment is unsafe to inspect because inspecting personnel would be exposed to an

imminent or potential danger as a consequence of complying with 40 CFR 60.482-10(f)(1)(i) or (f)(2); and

ii. The owner or operator has a written plan that requires inspection of the equipment as frequently as practicable during safe-to-inspect times.

l. Pursuant to 40 CFR 60.482-10(k), any parts of the closed vent system that are designated, as described in 40 CFR 60.482-10(l)(2), as difficult to inspect are exempt from the inspection requirements of 40 CFR 60.482-10(f)(1)(i) and (f)(2) if they comply with the requirements specified in 40 CFR 60.482-10(k)(1) through (k)(3):

i. The owner or operator determines that the equipment cannot be inspected without elevating the inspecting personnel more than 2 meters above a support surface; and

ii. The process unit within which the closed vent system is located becomes an affected facility through 40 CFR 60.14 or 60.15, or the owner or operator designates less than 3.0 percent of the total number of closed vent system equipment as difficult to inspect; and

iii. The owner or operator has a written plan that requires inspection of the equipment at least once every 5 years. A closed vent system is exempt from inspection if it is operated under a vacuum.

m. Pursuant to 40 CFR 60.482-10(m), closed vent systems and control devices used to comply with provisions of 40 CFR 60 Subpart VV shall be operated at all times when emissions may be vented to them.

12a. Pursuant to 40 CFR 60.633(a), each owner or operator subject to the provisions of 40 CFR 60 Subpart KKK may comply with the following exceptions to the provisions of 40 CFR 60 Subpart VV.

b. i. Pursuant to 40 CFR 60.633(b)(1), each pressure relief device in gas/vapor service may be monitored quarterly and within 5 days after each pressure release to detect leaks by the methods specified in 40 CFR 60.485(b) except as provided in 40 CFR 60.632(c), 40 CFR 60.633(b)(4), and 40 CFR 60.482-4(a) through (c).

ii. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.

iii. A. When a leak is detected, it shall be repaired as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in 40 CFR 60.482-9.

B. A first attempt at repair shall be made no later than 5 calendar days after each leak is detected.

iv. A. Any pressure relief device that is located in a nonfractionating plant that is monitored only by nonplant personnel may be monitored after a pressure release the next time the monitoring personnel are on site, instead of within 5 days as specified in 40 CFR 60.633(b)(1) and 40 CFR 60.482-4(b)(1).

B. No pressure relief device described in 40 CFR 60.633(b)(4)(i) shall be allowed to operate for more than 30 days after a pressure release without monitoring.

c. Pursuant to 40 CFR 60.633(c), sampling connection systems are exempt from the requirements of 40 CFR 60.482-5.

d. Pursuant to 40 CFR 60.633(d), pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service that are located at a nonfractionating plant that does not have the design capacity to process 283,200 standard cubic meters per day (scmd) (10 million standard cubic feet per day) or more of field gas are exempt from the routine monitoring requirements of 40 CFR 60.482-2(a)(1) and 60.482-7(a), and 40 CFR 60.633(b)(1).

e. Pursuant to 40 CFR 60.633(e), pumps in light liquid service, valves in gas/vapor and light liquid service, and pressure relief devices in gas/vapor service within a process unit that is located in the Alaskan North Slope are exempt from the routine monitoring requirements of 40 CFR 60.482-2(a)(1), 60.482-7(a), and 40 CFR 60.633(b)(1).

f. Pursuant to 40 CFR 60.633(f), reciprocating compressors in wet gas service are exempt from the compressor control requirements of 40 CFR 60.482-3.

g. Pursuant to 40 CFR 60.633(g), flares used to comply with 40 CFR 60 Subpart KKK shall comply with the requirements of 40 CFR 60.18.

h. Pursuant to 40 CFR 60.633(h), an owner or operator may use the following provisions instead of 40 CFR 60.485(e):

i. Equipment is in heavy liquid service if the weight percent evaporated is 10 percent or less at 150°C (302°F) as determined by ASTM Method D86-78, 82, 90, 95, or 96.

ii. Equipment is in light liquid service if the weight percent evaporated is greater than 10 percent at 150°C (302°F) as determined by ASTM Method D86-78, 82, 90, 95, or 96.

13a. Pursuant to 40 CFR 63.764(a), Table 2 of 40 CFR 63 Subpart HH (see Attachment B) specifies the provisions of subpart A (General Provisions) of 40 CFR Part 63 that apply and those that do not apply to owners and operators of affected sources subject to this subpart.

b. Pursuant to 40 CFR 63.764(i), in all cases where the provisions of 40 CFR 63 Subpart HH require an owner or operator to repair leaks by a specified time after the leak is detected, it is a violation of 40 CFR 63 Subpart HH to fail to take action to repair the leak(s) within the specified time. If action is taken to repair the leak(s) within the specified time, failure of that action to successfully repair the leak(s) is not a violation of 40 CFR 63 Subpart HH. However, if the repairs are unsuccessful, and a leak is detected, the owner or operator shall take further action as required by the applicable provisions of 40 CFR 63 Subpart HH.

c. Pursuant to 40 CFR 63.764(j), at all times the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Illinois EPA or USEPA which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

14a. In the event that the operation of this source results in an odor nuisance, the Permittee shall take appropriate and necessary actions to minimize odors, including but not limited to, changes in raw material or installation of controls, in order to eliminate the odor nuisance.

b. The Permittee shall, in accordance with the manufacturer(s) and/or vendor(s) recommendations, perform periodic maintenance on the flares and vapor recovery units such that the flares and vapor recovery units are kept in proper working condition and not causes a violation of the Illinois Environmental Protection Act or regulations promulgated therein.

15a. Equipment Fugitive Emissions shall not exceed the following limits:

E M I S S I O N S					
VOM		H_2S		HAPs	
(Lbs/Day)	(Tons/Yr)	(Lbs/Day)	(Tons/Yr)	(Lbs/Day)	(Tons/Yr)
225	30.29	9.0	1.16	9.47	1.42

These limits are based on number of sources i.e. valves, flanges etc., Texas Commission on Environmental Quality (TCEQ), American Petroleum Institute. and 8760 hours/year of operation.

b. Emissions from the facility flares shall not exceed the following limits:

Pollutant	Emissions (Lbs/Day)	(Tons/Year)
CO	478	71.6
H_2S	6	0.8
NO_x	56	8.4
SO_2	504	75.5
VOM	394	59.1

These limits are based on 227 mmscf/year residue plus pilot gas, 0.13 mmscf/year sour plus pilot gas, and gas analysis provided in construction permit application.

c. Emissions and operation of the dehydrator reboiler emissions shall not exceed the following limits:

Pollutant	Emission Rate (Lbs/10^6 scf)	Emissions (Lb/Day)	(Tons/Year)
CO	84.0	0.47	0.07
NO_x	100.0	0.54	0.08
PM	7.6	0.07	0.01

These limits are based on maximum reboiler operations, standard emission factors (Tables 1.4-1 and 1.4-2, AP-42, Fifth Edition, Volume I, Supplement D, July 1998), and 8,760 hours/year of operation.

d. Combined emissions of the two (2) 400 bbl oil stock tanks shall not exceed 34 lbs/day and 4.98 tons/year of volatile organic materials (VOM). This is based on throughput of 6,898,500 gallon per year per tank, and the TANKS Emissions Estimation Software (Version 4.09, October 3, 2005 shall be used in future calculations).

e. This permit is issued based on negligible emissions of volatile organic materials (VOM) from the condensate storage tank. For this purpose, emissions shall not exceed nominal emissions rate of 0.1 lb/hour and 0.44 tons/year.

f. The emissions of Hazardous Air Pollutants (HAP) as listed in Section 112(b) of the Clean Air Act from this source shall not exceed 53.0 lbs/day and 7.9 tons/year of any single HAP and 133 lbs/day and 19.9 tons/year of any combination of such HAPs. As a result of this condition, this permit is issued based on the emissions of any HAP from this source not triggering the requirement to obtain a CAAPP permit from the Illinois EPA.

g. Compliance with the annual limits of this permit shall be determined on a monthly basis from the sum of the data for the current month plus the preceding 11 months (running 12 month total).

16a. Pursuant to 40 CFR 60.8(a), at such other times as may be required by the Illinois EPA or USEPA under section 114 of the Clean Air Act, the

owner or operator of such facility shall conduct performance test(s) and furnish the Illinois EPA or USEPA a written report of the results of such performance test(s).

b. Pursuant to 40 CFR 60.8(b), performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart of 40 CFR Part 60 unless the Illinois EPA or USEPA:

   i. Specifies or approves, in specific cases, the use of a reference method with minor changes in methodology;

   ii. Approves the use of an equivalent method;

   iii. Approves the use of an alternative method the results of which he has determined to be adequate for indicating whether a specific source is in compliance;

   iv. Waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Illinois EPA's or USEPA's satisfaction that the affected facility is in compliance with the standard; or

   v. Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors. Nothing in this paragraph shall be construed to abrogate the Illinois EPA's or USEPA's authority to require testing under section 114 of the Clean Air Act.

c. Pursuant to 40 CFR 60.8(c), performance tests shall be conducted under such conditions as the Illinois EPA or USEPA shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Illinois EPA or USEPA such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

d. Pursuant to 40 CFR 60.8(d), the owner or operator of an affected facility shall provide the Illinois EPA or USEPA at least 30 days prior notice of any performance test, except as specified under other subparts, to afford the Illinois EPA or USEPA the opportunity to have an observer present. If after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the owner or operator of an affected facility shall notify the Illinois EPA or USEPA as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled

date of the performance test, or by arranging a rescheduled date with the Illinois EPA or USEPA by mutual agreement.

e. Pursuant to 40 CFR 60.8(e), the owner or operator of an affected facility shall provide, or cause to be provided, performance testing facilities as follows:

i. Sampling ports adequate for test methods applicable to such facility. This includes:

A. Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test 1 methods and procedures; and

B. Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.

ii. Safe sampling platform(s).

iii. Safe access to sampling platform(s).

iv. Utilities for sampling and testing equipment.

f. Pursuant to 40 CFR 60.8(f), unless otherwise specified in the applicable subpart of 40 CFR Part 60, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard under 40 CFR Part 60. For the purpose of determining compliance with an applicable standard under 40 CFR Part 60, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Illinois EPA's or USEPA's approval, be determined using the arithmetic mean of the results of the two other runs.

g. i. Pursuant to 40 CFR 60.18(f)(1), Method 22 of appendix A to 40 CFR Part 60 shall be used to determine the compliance of flares with the visible emission provisions of 40 CFR 60 Subpart A. The observation period is 2 hours and shall be used according to Method 22.

ii. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

iii. The net heating value of the gas being combusted in a flare shall be calculated using the equation in 40 CFR 60.18(f)(3).

iv. The actual exit velocity of a flare shall be determined by dividing the volumetric flowrate (in units of standard temperature and pressure), as determined by Reference Methods 2, 2A, 2C, or 2D as appropriate; by the unobstructed (free) cross sectional area of the flare tip.

v. The maximum permitted velocity, V_{max}, for flares complying with 40 CFR 60.18(c)(4)(iii) shall be determined by the equation in 40 CFR 60.18(f)(5).

vi. The maximum permitted velocity, V_{max}, for air-assisted flares shall be determined by the equation in 40 CFR 60.18(f)(6).

17a. Pursuant to 40 CFR 60.485(a), in conducting the performance test required in 40 CFR 60.8 the owner or operator shall use as reference methods and procedures the test methods in 40 CFR 60, Appendix A or other methods and procedures as specified in 40 CFR 60.485, except as provided in 40 CFR 60.8(b).

b. Pursuant to 40 CFR 60.485(b), the owner or operator shall determine compliance with the standards in 40 CFR 60.482 as follows:

i. Method 21 shall be used to determine the presence of leaking sources. The instrument shall be calibrated before use each day of its use in the procedures specified in Method 21. The following calibration gas shall be used:

A. Zero air (less than 10 ppm of hydrocarbon in air); and

B. Mixture of methane of n-hexane and air at a concentration of about, but less the, 10,000 ppm methane or n-hexane.

c. Pursuant to 40 CFR 60.485(c), the owner or operator shall determine compliance with the no detectable emission standards in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, 60.482-7(f), and 60.482-10(e) as follows:

i. The requirement of 40 CFR 60.485(b) shall apply.

ii. Method 21 shall be used to determine the background level. All potential leak interfaces shall be traversed as close to the interface as possible. The arithmetic difference between the maximum concentration indicated by the instrument and the background level is compared with 500 ppm for determining compliance.

d. Pursuant to 40 CFR 60.485(d), the owner or operator shall test each piece of equipment unless it is demonstrated that a process unit is not in VOC service i.e., that the VOC content would never be reasonably expected to exceed 10 percent by weight. For purposes of this demonstration, the methods and procedures specified in 40 CFR 60.485(d)(1) through (d)3) shall be used.

e. Pursuant to 40 CFR 60.485(e), the owner or operator shall demonstrate that equipment is in light liquid service by showing that all the following conditions apply:

   i. The vapor pressure of one or more of the components is greater than 0.3 kPa at 20°C (1.2 in H_2O at 68°F). Standard reference tests or ASTM D2879-83, 96, or 97 (incorporated by reference) shall be used to determine the vapor pressures.

   ii. The total concentration of the pure components having vapor pressure greater than 0.3 kPa at 20°C (1.2 in H_20 at 68°F) is greater than 20 percent by weight.

   iii. The fluid is a liquid at operating conditions.

f. Pursuant to 40 CFR 60.485(f), samples used in conjunction with 40 CFR 60.485(d) and (e) shall be representative of the process fluid that is contained in or contacts the equipment.

g. Pursuant to 40 CFR 60.485(g), the owner or operator shall determine compliance with the standards of flares as follows:

   i. Method 22 shall be used to determine visible emissions.

   ii. A thermocouple or any other equivalent device shall be used to monitor the presence of a pilot flame in the flare.

   iii. The maximum permitted velocity for air assisted flares shall be computed using the following equation:

$$V_{max} = K_1 + K_2 H_T$$

   Where:

   V_{max} = Maximum permitted velocity, m/sec (ft/sec)

   H_T = Net heating value of the gas being combusted, MJ/scm (Btu/scf).

   K_1 = 8.706 m/sec (metric units)

   = 28.56 ft/sec (English units)

   K_2 = 0.7084 m^4/(MJ-sec) (metric units)

   = 0.087 ft^4/(Btu-sec) (English units)

   iv. The net heating value (H_T) of the gas being combusted in a flare shall be computed using the following equation:

$$H_T = K\sum_{i=1}^{n} C_i H_i$$

Where:

K = Conversion constant, 1.740×10^{-7} (g-mole)(MJ)/(ppm-scm-kcal) (metric units) = 4.674×10^{-6} [(g-mole)(Btu)/(ppm-scf-kcal)] (English units)

C_i = Concentration of sample component "i," ppm

H_i = Net heat of combustion of sample component "i" at 25°C and 760 mm Hg (77°F and 14.7 psi), kcal/g-mole

v. Method 18 or ASTM D6420-99 (2004) (where the target compound(s) are those listed in Section 1.1 of ASTM D6420-99, and the target concentration is between 150 parts per billion by volume and 100 parts per million by volume) and ASTM D2504-67, 77 or 88 (Reapproved 1993) shall be used to determine the concentration of sample component "i".

vi. ASTM D2382-76 or 88 or D4809-95 shall be used to determine the net heat of combustion of component "i" if published values are not available or cannot be calculated.

vii. Method 2, 2A, 2C, or 2D, as appropriate, shall be used to determine the actual exit velocity of a flare. If needed, the unobstructed (free) cross-sectional area of the flare tip shall be used.

18. The flares shall have a heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light to indicate continuous presence of a flame.

19. Pursuant to 40 CFR 60.7(b), any owner or operator subject to the provisions of 40 CFR Part 60 shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

20a. Pursuant to 40 CFR 60.486(b), when each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following requirements apply:

i. A weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.

ii. The identification on a valve may be removed after it has been monitored for 2 successive months as specified in 40 CFR 60.482-7(c) and no leak has been detected during those 2 months.

iii. The identification on equipment except on a valve, may be removed after it has been repaired.

b. Pursuant to 40 CFR 60.486(c), when each leak is detected as specified in 40 CFR 60.482-2, 60.482-3, 60.482-7, 60.482-8, and 60.483-2, the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

i. The instrument and operator identification numbers and the equipment identification number.

ii. The date the leak was detected and the dates of each attempt to repair the leak.

iii. Repair methods applied in each attempt to repair the leak.

iv. "Above 10,000" if the maximum instrument reading measured by the methods specified in 40 CFR 60.485(a) after each repair attempt is equal to or greater than 10,000 ppm.

v. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

vi. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

vii. The expected date of successful repair of the leak if a leak is not repaired within 15 days.

viii. Dates of process unit shutdowns that occur while the equipment is unrepaired.

ix. The date of successful repair of the leak.

c. Pursuant to 40 CFR 60.486(d), the following information pertaining to the design requirements for closed vent systems and control devices described in 40 CFR 60.482-10 shall be recorded and kept in a readily accessible location:

i. Detailed schematics, design specifications, and piping and instrumentation diagrams.

ii. The dates and descriptions of any changes in the design specifications.

iii. A description of the parameter or parameters monitored, as required in 40 CFR 60.482-10(e), to ensure that control devices are operated and maintained in conformance with their design and an explanation of why that parameter (or parameters) was selected for the monitoring.

iv. Periods when the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5 are not operated as designed, including periods when a flare pilot light does not have a flame.

v. Dates of startups and shutdowns of the closed vent systems and control devices required in 40 CFR 60.482-2, 60.482-3, 60.482-4, and 60.482-5.

d. Pursuant to 40 CFR 60.486(e), the following information pertaining to all equipment subject to the requirements in 40 CFR 60.482-1 to 60.482-10 shall be recorded in a log that is kept in a readily accessible location:

i. A list of identification numbers for equipment subject to the requirements of 40 CFR 60 Subpart VV.

ii. A. A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-2(e), 60.482-3(i) and 60.482-7(f).

B. The designation of equipment as subject to the requirements of 40 CFR 60.482-2(e), 40 CFR 60.482-3(i), or 40 CFR 60.482-7(f) shall be signed by the owner or operator.

iii. A list of equipment identification numbers for pressure relief devices required to comply with 40 CFR 60.482-4.

iv. A. The dates of each compliance test as required in 40 CFR 60.482-2(e), 60.482-3(i), 60.482-4, and 60.482-7(f).

B. The background level measured during each compliance test.

C. The maximum instrument reading measured at the equipment during each compliance test.

v. A list of identification numbers for equipment in vacuum service.

e. Pursuant to 40 CFR 60.486(f), the following information pertaining to all valves subject to the requirements of 40 CFR 60.482-7(g) and (h) and to all pumps subject to the requirements of 40 CFR 60.482-2(g) shall be recorded in a log that is kept in a readily accessible location:

i. A list of identification numbers for valves and pumps that are designated as unsafe-to-monitor, an explanation for each valve or pump stating why the valve or pump is unsafe-to-monitor, and the plan for monitoring each valve or pump.

ii. A list of identification numbers for valves that are designated as difficult-to-monitor, an explanation for each valve stating

why the valve is difficult-to-monitor, and the schedule for monitoring each value.

f. Pursuant to 40 CFR 60.486(j), information and data used to demonstrate that a piece of equipment is not in VOC service shall be recorded in a log that is kept in a readily accessible location.

g. Pursuant to 40 CFR 60.482-10(l), the owner or operator shall record the information specified in 40 CFR 60.482-10(l)(1) through (l)(5).

i. Identification of all parts of the closed vent system that are designated as unsafe to inspect, an explanation of why the equipment is unsafe to inspect, and the plan for inspecting the equipment.

ii. Identification of all parts of the closed vent system that are designated as difficult to inspect, an explanation of why the equipment is difficult to inspect, and the plan for inspecting the equipment.

iii. For each inspection during which a leak is detected, a record of the information specified in 40 CFR 60.486(c).

iv. For each inspection conducted in accordance with 40 CFR 60.485(b) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

v. For each visual inspection conducted in accordance with 40 CFR 60.482-10(f)(1)(ii) during which no leaks are detected, a record that the inspection was performed, the date of the inspection, and a statement that no leaks were detected.

21a. Pursuant to 40 CFR 60.635(a), each owner or operator subject to the provisions of 40 CFR 60 Subpart KKK shall comply with the requirements of 40 CFR 60.635(b) and (c) in addition to the requirements of 40 CFR 60.486.

b. Pursuant to 40 CFR 60.635(b), the following recordkeeping requirements shall apply to pressure relief devices subject to the requirements of 40 CFR 60.633(b)(1).

i. When each leak is detected as specified in 40 CFR 60.633(b)(2), a weatherproof and readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment. The identification on the pressure relief device may be removed after it has been repaired.

ii. When each leak is detected as specified in 40 CFR 60.633(b)(2), the following information shall be recorded in a log and shall be kept for 2 years in a readily accessible location:

A. The instrument and operator identification numbers and the equipment identification number.

B. The date the leak was detected and the dates of each attempt to repair the leak.

C. Repair methods applied in each attempt to repair the leak.

D. "Above 10,000 ppm" if the maximum instrument reading measured by the methods specified in 40 CFR 60.635(a) after each repair attempt is 10,000 ppm or greater.

E. "Repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.

F. The signature of the owner or operator (or designate) whose decision it was that repair could not be effected without a process shutdown.

G. The expected date of successful repair of the leak if a leak is not repaired within 15 days.

H. Dates of process unit shutdowns that occur while the equipment is unrepaired.

I. The date of successful repair of the leak.

J. A list of identification numbers for equipment that are designated for no detectable emissions under the provisions of 40 CFR 60.482-4(a). The designation of equipment subject to the provisions of 40 CFR 60.482-4(a) shall be signed by the owner or operator.

c. Pursuant to 40 CFR 60.635(c), an owner or operator shall comply with the following requirement in addition to the requirement of 40 CFR 60.486(j): Information and data used to demonstrate that a reciprocating compressor is in wet gas service to apply for the exemption in 40 CFR 60.633(f) shall be recorded in a log that is kept in a readily accessible location.

22a. Pursuant to 40 CFR 60.647(a), records of the calculations and measurements required in 40 CFR 60.642(a) and (b) and 40 CFR 60.646(a) through (g) must be retained for at least 2 years following the date of the measurements by owners and operators subject to 40 CFR 60 Subpart LLL. This requirement is included under 40 CFR 60.7(d) of the General Provisions.

b. Pursuant to 40 CFR 60.647(c), to certify that a facility is exempt from the control requirements of the standards in 40 CFR 60 Subpart LLL, each owner or operator of a facility with a design capacity less that 2 LT/D of H_2S in the acid gas (expressed as sulfur) shall keep, for the

life of the facility, an analysis demonstrating that the facility's design capacity is less than 2 LT/D of H_2S expressed as sulfur.

23. Pursuant to 40 CFR 63.10(b)(3), if an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants regulated by any standard established pursuant to section 112(d) or (f) of the Clean Air Act, and that stationary source is in the source category regulated by the relevant standard, but that source is not subject to the relevant standard (or other requirement established under 40 CFR Part 63) because of limitations on the source's potential to emit or an exclusion, the owner or operator must keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination must be signed by the person making the determination and include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) must be sufficiently detailed to allow the USEPA and/or Illinois EPA to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis must be performed in accordance with requirements established in relevant subparts of 40 CFR Part 63 for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with USEPA guidance materials published to assist sources in making applicability determinations under Section 112 of the Clean Air Act, if any. The requirements to determine applicability of a standard under 40 CFR 63.1(b)(3) and to record the results of that determination under 40 CFR 63.10(b)(3) shall not by themselves create an obligation for the owner or operator to obtain a Title V permit.

24a. Pursuant to 40 CFR 63.774(b), except as specified in 40 CFR 63.774(c), (d), and (f), each owner or operator of a facility subject to 40 CFR 63 Subpart HH shall maintain the records specified in 40 CFR 63.774(b)(1) through (11):

i. The owner or operator of an affected source subject to the provisions of 40 CFR 63 Subpart HH shall maintain files of all information (including all reports and notifications) required by 40 CFR 63 Subpart HH. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or period.

A. All applicable records shall be maintained in such a manner that they can be readily accessed.

B. The most recent 12 months of records shall be retained on site or shall be accessible from a central location by computer or other means that provides access within 2 hours after a request.

C. The remaining 4 years of records may be retained offsite.

D. Records may be maintained in hard copy or computer-readable form including, but not limited to, on paper, microfilm, computer, floppy disk, magnetic tape, or microfiche.

ii. Records specified in 40 CFR 63.10(b)(2);

b. Pursuant to 40 CFR 63.774(f), the owner or operator of an area source not located within a UA plus offset and UC boundary must keep a record of the calculation used to determine the optimum glycol circulation rate in accordance with 40 CFR 63.764(d)(2)(i) or 40 CFR 63.764(d)(2)(ii), as applicable

25a. The Permittee shall maintain records of the following items so as to demonstrate compliance with the conditions of this permit:

i. Records addressing use of good operating practices for the flares and vapor recovery units:

A. Records for periodic inspection of the flares and vapor recovery units with date, individual performing the inspection, and nature of inspection; and

B. Records for prompt repair of defects, with identification and description of defect, effect on emissions, date identified, date repaired, and nature of repair.

ii. Amount of gas burned in the facility flares (mmBtu/day, scf/day, scf/year and mmBtu/year);

iii. Amount of gas burned in the dehydrator reboiler (mmBtu/day, scf/day, scf/year and mmBtu/year); and

iv. Monthly and annual CO, , NO_x, H_2S, PM, SO_2, VOM, and HAP emissions with supporting calculations (lbs/day, tons/year).

b. All records and logs required by this permit shall be retained at a readily accessible location at the source for at least five (5) years from the date of entry and shall be made available for inspection and copying by the Illinois EPA or USEPA upon request. Any records retained in an electronic format (e.g., computer storage device) shall be capable of being retrieved and printed on paper during normal source office hours so as to be able to respond to an Illinois EPA request for records during the course of a source inspection.

26a. Pursuant to 40 CFR 60.487(a), each owner or operator subject to the provisions of 40 CFR 60 Subpart VV shall submit semiannual reports to the Illinois EPA or USEPA beginning six months after the initial start up date.

b. Pursuant to 40 CFR 60.487(c), all semiannual reports to the Illinois EPA or USEPA shall include the following information, summarized from the information in 40 CFR 60.486:

i. Process unit identification.

ii. For each month during the semiannual reporting period:

A. Number of valves for which leaks were detected as described in 40 CFR 60.482(7)(b) or 40 CFR 60.483-2;

B. Number of valves for which leaks were not repaired as required in 40 CFR 60.482-7(d)(1);

C. Number of pumps for which leaks were detected as described in 40 CFR 60.482-2(b) and (d)(6)(i);

D. Number of pumps for which leaks were not repaired as required in 40 CFR 60.482-2(c)(1) and (d)(6)(ii);

E. Number of compressors for which leaks were detected as described in 40 CFR 60.482-3(f);

F. Number of compressors for which leaks were not repaired as required in 40 CFR 60.482-3(g)(1);

G. The facts that explain each delay of repair and, where appropriate, why a process unit shutdown was technically infeasible.

iii. Dates of process unit shutdowns which occurred within the semiannual reporting period; and

iv. Revisions to items reported according to 40 CFR 60.487(b) if changes have occurred since the initial report or subsequent revisions to the initial report.

27a. Pursuant to 40 CFR 60.636(a), each owner or operator subject to the provisions of 40 CFR 60 Subpart KKK shall comply with the requirements of 40 CFR 60.636(b) and (c) in addition to the requirements of 40 CFR 60.487.

b. Pursuant to 40 CFR 60.636(c), an owner or operator shall include the following information in all semiannual reports in addition to the information required in 40 CFR 60.487(c)(2) (i) through (vi):

i. Number of pressure relief devices for which leaks were detected as required in 40 CFR 60.633(b)(2); and

ii. Number of pressure relief devices for which leaks were not repaired as required in 40 CFR 60.633(b)(3).

28a. Pursuant to 40 CFR 63.764(b), all reports required under 40 CFR 63 Subpart HH shall be sent to the Illinois EPA or USEPA at the appropriate address listed in 40 CFR 63.13. Reports may be submitted on electronic media.

b. Pursuant to 40 CFR 63.775(c), except as provided in 40 CFR 63.775(c)(8), each owner or operator of an area source subject to 40 CFR 63 Subpart HH shall submit the information listed in 40 CFR 63.775(c)(1). If the source is located within a UA plus offset and UC boundary, the owner or operator shall also submit the information listed in 40 CFR 63.775(c)(2) through (6). If the source is not located within any UA plus offset and UC boundaries, the owner or operator shall also submit the information listed within 40 CFR 63.775(c)(7).

i. The information listed in paragraphs (c)(1)(i) through (v) of this section. This information shall be submitted with the initial notification.

A. Documentation of the source's location relative to the nearest UA plus offset and UC boundaries. This information shall include the latitude and longitude of the affected source; whether the source is located in an urban cluster with 10,000 people or more; the distance in miles to the nearest urbanized area boundary if the source is not located in an urban cluster with 10,000 people or more; and the name of the nearest urban cluster with 10,000 people or more and nearest urbanized area.

B. Calculation of the optimum glycol circulation rate determined in accordance with 40 CFR 63.764(d)(2)(i).

C. If applicable, documentation of the alternate glycol circulation rate calculated using GRI-GLYCalcTM, Version 3.0 or higher and documentation stating why the TEG dehydration unit must operate using the alternate glycol circulation rate.

D. The name of the manufacturer and the model number of the glycol circulation pump(s) in operation.

E. Statement by a responsible official, with that official's name, title, and signature, certifying that the facility will always operate the glycol dehydration unit using the optimum circulation rate determined in accordance with 40 CFR 63.764(d)(2)(i) or 49 CFR 63.764(d)(2)(ii), as applicable.

ii. An owner or operator of a TEG dehydration unit located at an area source that meets the criteria in 40 CFR 63.764(e)(1)(i) or 40 CFR 63.764(e)(1)(ii) is exempt from the reporting requirements

for area sources in 40 CFR 63.775(c)(1) through (7), for that unit.

29a. If there is an exceedance of or a deviation from the requirements of this permit as determined by the records required by this permit, the Permittee shall submit a report to the Illinois EPA's Compliance Section in Springfield, Illinois within 30 days after the exceedance or deviation. The report shall include the emissions released in accordance with the recordkeeping requirements, a copy of the relevant records, and a description of the exceedances or deviation and efforts to reduce emissions and future occurrences.

b. Two (2) copies of required reports and notifications shall be sent to:

Illinois Environmental Protection Agency
Division of Air Pollution Control
Compliance Section (#40)
P.O. Box 19276
Springfield, Illinois 62794-9276

and one (1) copy shall be sent to the Illinois EPA's regional office at the following address unless otherwise indicated:

Illinois Environmental Protection Agency
Division of Air Pollution Control
2009 Mall Street
Collinsville, Illinois 62234

If you have any questions on this permit, please contact German Barria at 217/785-1705.

Raymond E. Pilapil
Acting Manager, Permit Section
Division of Air Pollution Control

Date Signed: _____

REP:GB:psj

cc: Illinois EPA, FOS Region 3
Lotus Notes

Attachment A - Emission Summary

This attachment provides a summary of the maximum emission of the gas gathering operation in compliance with the requirements of this federally enforceable permit. In preparing this summary, the Illinois EPA used the annual operating scenario which results in maximum emissions from the plant. The resulting maximum emissions are below the threshold levels (e.g., 100 tons/year for VOM, 10 tons/year for any single HAP, and 25 tons/year for any combination of HAPs) at which this source would be considered a major source for purposes of the Clean Air Act Permit Program. Actual emissions from this source will be less than predicted in this summary to the extent that VOM, HAP and natural gas usage is less than that allowed in this permit.

	E M I S S I O N S (Tons/Year)						
Emission Unit	CO	NO_x	PM	SO_2	VOM	H_2S	Total HAPs
Equipment fugitives					33.72	1.35	1.42
Facility flares	71.60	8.40		75.50	59.10	0.80	
Dehydration reboiler	0.07	0.08	0.01				
Condensate Storage Tank					0.44		
Two oil stock tanks					4.98	0.18	
Totals	71.67	8.48	0.01	75.50	98.24	2.33	< 19.9

Attachment B -- Table 2 to Subpart HH of Part 63—Applicability of 40 CFR Part 63 General Provisions to Subpart HH

General provisions reference	Applicable to subpart HH	Explanation
§63.1(a)(1)	Yes.	
§63.1(a)(2)	Yes.	
§63.1(a)(3)	Yes.	
§63.1(a)(4)	Yes.	
§63.1(a)(5)	No	Section reserved.
§63.1(a)(6)	Yes.	
§63.1(a)(7) through (a)(9)	No	Section reserved.
§63.1(a)(10)	Yes.	
§63.1(a)(11)	Yes.	
§63.1(a)(12)	Yes.	
§63.1(b)(1)	No	Subpart HH specifies applicability.
§63.1(b)(2)	No	Section reserved.
§63.1(b)(3)	Yes.	
§63.1(c)(1)	No	Subpart HH specifies applicability.
§63.1(c)(2)	Yes	Subpart HH exempts area sources from the requirement to obtain a Title V permit unless otherwise required by law as specified in §63.760(h).
§63.1(c)(3) and (c)(4)	No	Section reserved.
§63.1(c)(5)	Yes.	
§63.1(d)	No	Section reserved.
§63.1(e)	Yes.	
§63.2	Yes	Except definition of major source is unique for this source category and there are additional definitions in subpart HH.
§63.3(a) through (c)	Yes.	
§63.4(a)(1) through (a)(2)	Yes.	
§63.4(a)(3) through (a)(5)	No	Section reserved.
§63.4(b)	Yes.	
§63.4(c)	Yes.	
§63.5(a)(1)	Yes.	
§63.5(a)(2)	Yes.	
§63.5(b)(1)	Yes.	
§63.5(b)(2)	No	Section reserved.
§63.5(b)(3)	Yes.	
§63.5(b)(4)	Yes.	
§63.5(b)(5)	No	Section Reserved.

General provisions reference	Applicable to subpart HH	Explanation
§63.5(b)(6)	Yes.	
§63.5(c)	No	Section reserved.
§63.5(d)(1)	Yes.	
§63.5(d)(2)	Yes.	
§63.5(d)(3)	Yes.	
§63.5(d)(4)	Yes.	
§63.5(e)	Yes.	
§63.5(f)(1)	Yes.	
§63.5(f)(2)	Yes.	
§63.6(a)	Yes.	
§63.6(b)(1)	Yes.	
§63.6(b)(2)	Yes.	
§63.6(b)(3)	Yes.	
§63.6(b)(4)	Yes.	
§63.6(b)(5)	Yes.	
§63.6(b)(6)	No	Section reserved.
§63.6(b)(7)	Yes.	
§63.6(c)(1)	Yes.	
§63.6(c)(2)	Yes.	
§63.6(c)(3) through (c)(4)	No	Section reserved.
§63.6(c)(5)	Yes.	
§63.6(d)	No	Section reserved.
§63.6(e)(1)(i)	No	See §63.764(j) for general duty requirement.
§63.6(e)(1)(ii)	No.	
§63.6(e)(1)(iii)	Yes.	
§63.6(e)(2)	No	Section reserved.
§63.6(e)(3)	No.	
§63.6(f)(1)	No.	
§63.6(f)(2)	Yes.	
§63.6(f)(3)	Yes.	
§63.6(g)	Yes.	
§63.6(h)(1)	No.	
§63.6(h)(2) through (h)(9)	Yes.	
§63.6(i)(1) through (i)(14)	Yes.	
§63.6(i)(15)	No	Section reserved.
§63.6(i)(16)	Yes.	
§63.6(j)	Yes.	
§63.7(a)(1)	Yes.	

General provisions reference	Applicable to subpart HH	Explanation
§63.7(a)(2)	Yes	But the performance test results must be submitted within 180 days after the compliance date.
§63.7(a)(3)	Yes.	
§63.7(a)(4)	Yes.	
§63.7(c)	Yes.	
§63.7(d)	Yes.	
§63.7(e)(1)	No.	
§63.7(e)(2)	Yes.	
§63.7(e)(3)	Yes.	
§63.7(e)(4)	Yes.	
§63.7(f)	Yes.	
§63.7(g)	Yes.	
§63.7(h)	Yes.	
§63.8(a)(1)	Yes.	
§63.8(a)(2)	Yes.	
§63.8(a)(3)	No	Section reserved.
§63.8(a)(4)	Yes.	
§63.8(b)(1)	Yes.	
§63.8(b)(2)	Yes.	
§63.8(b)(3)	Yes.	
§63.8(c)(1)	No.	
§63.8(c)(1)(i)	No.	
§63.8(c)(1)(ii)	Yes.	
§63.8(c)(1)(iii)	No.	
§63.8(c)(2)	Yes.	
§63.8(c)(3)	Yes.	
§63.8(c)(4)	Yes.	
§63.8(c)(4)(i)	No	Subpart HH does not require continuous opacity monitors.
§63.8(c)(4)(ii)	Yes.	
§63.8(c)(5) through (c)(8)	Yes.	
§63.8(d)(1)	Yes.	
§63.8(d)(2)	Yes.	
§63.8(d)(3)	Yes	Except for last sentence, which refers to an SSM plan. SSM plans are not required.
§63.8(e)	Yes	Subpart HH does not specifically require continuous emissions monitor performance evaluation, however, the Administrator can request that one be conducted.
§63.8(f)(1) through (f)(5)	Yes.	

General provisions reference	Applicable to subpart HH	Explanation
§63.8(f)(6)	Yes.	
§63.8(g)	No	Subpart HH specifies continuous monitoring system data reduction requirements.
§63.9(a)	Yes.	
§63.9(b)(1)	Yes.	
§63.9(b)(2)	Yes	Existing sources are given 1 year (rather than 120 days) to submit this notification. Major and area sources that meet §63.764(e) do not have to submit initial notifications.
§63.9(b)(3)	No	Section reserved.
§63.9(b)(4)	Yes.	
§63.9(b)(5)	Yes.	
§63.9(c)	Yes.	
§63.9(d)	Yes.	
§63.9(e)	Yes.	
§63.9(f)	Yes.	
§63.9(g)	Yes.	
§63.9(h)(1) through (h)(3)	Yes	Area sources located outside UA plus offset and UC boundaries are not required to submit notifications of compliance status.
§63.9(h)(4)	No	Section reserved.
§63.9(h)(5) through (h)(6)	Yes.	
§63.9(i)	Yes.	
§63.9(j)	Yes.	
§63.10(a)	Yes.	
§63.10(b)(1)	Yes	§63.774(b)(1) requires sources to maintain the most recent 12 months of data on-site and allows offsite storage for the remaining 4 years of data.
§63.10(b)(2)	Yes.	
§63.10(b)(2)(i)	No.	
§63.10(b)(2)(ii)	No	See §63.774(g) for recordkeeping of (1) occurrence and duration and (2) actions taken during malfunctions.
§63.10(b)(2)(iii)	Yes.	
§63.10(b)(2)(iv) through (b)(2)(v)	No.	
§63.10(b)(2)(vi) through (b)(2)(xiv)	Yes.	
§63.10(b)(3)	Yes	§63.774(b)(1) requires sources to maintain the most recent 12 months of data on-site and allows offsite storage for the remaining 4 years of data.

General provisions reference	Applicable to subpart HH	Explanation
§63.10(c)(1)	Yes.	
§63.10(c)(2) through (c)(4)	No	Sections reserved.
§63.10(c)(5) through (c)(8)	Yes.	
§63.10(c)(9)	No	Section reserved.
§63.10(c)(10) through (11)	No	See §63.774(g) for recordkeeping of malfunctions.
§63.10(c)(12) through (14)	Yes.	
§63.10(c)(15)	No.	
§63.10(d)(1)	Yes.	
§63.10(d)(2)	Yes	Area sources located outside UA plus offset and UC boundaries do not have to submit performance test reports.
§63.10(d)(3)	Yes.	
§63.10(d)(4)	Yes.	
§63.10(d)(5)	No	See §63.775(b)(6) or (c)(6) for reporting of malfunctions.
§63.10(e)(1)	Yes	Area sources located outside UA plus offset and UC boundaries are not required to submit reports.
§63.10(e)(2)	Yes	Area sources located outside UA plus offset and UC boundaries are not required to submit reports.
§63.10(e)(3)(i)	Yes	Subpart HH requires major sources to submit Periodic Reports semi-annually. Area sources are required to submit Periodic Reports annually. Area sources located outside UA plus offset and UC boundaries are not required to submit reports.
§63.10(e)(3)(i)(A)	Yes.	
§63.10(e)(3)(i)(B)	Yes.	
§63.10(e)(3)(i)(C)	No.	
§63.10(e)(3)(i)(D)	Yes	Section reserved.
§63.10(e)(3)(ii) through (viii)	Yes.	
§63.10(e)(4)	Yes.	
§63.10(f)	Yes.	
§63.11(a) and (b)	Yes.	
§63.11(c), (d), and (e)	Yes.	
§63.12(a) through (c)	Yes.	

General provisions reference	Applicable to subpart HH	Explanation
§63.13(a) through (c)	Yes.	
§63.14(a) through (q)	Yes.	
§63.15(a) and (b)	Yes.	
§63.16	Yes.	